

## PROCESS FOR IMPROVING THE ETCH STABILITY OF ULTRA-THIN PHOTORESIST

### ABSTRACT OF THE DISCLOSURE

An integrated circuit fabrication process is disclosed herein. The process includes exposing a photoresist layer to a plasma, and transforming the top surface and the side surfaces of the photoresist layer to form a hardened surface.

The process further includes etching the substrate in accordance with the

- 5 transformed feature, wherein an etch stability of the feature is increased by the hardened surface. The photoresist layer is provided at a thickness less than 0.25  $\mu\text{m}$ , for use in deep ultraviolet lithography, or for use in extreme ultraviolet lithography.